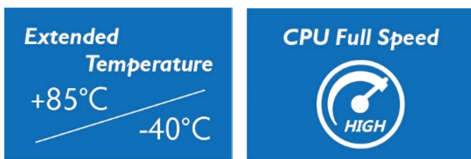
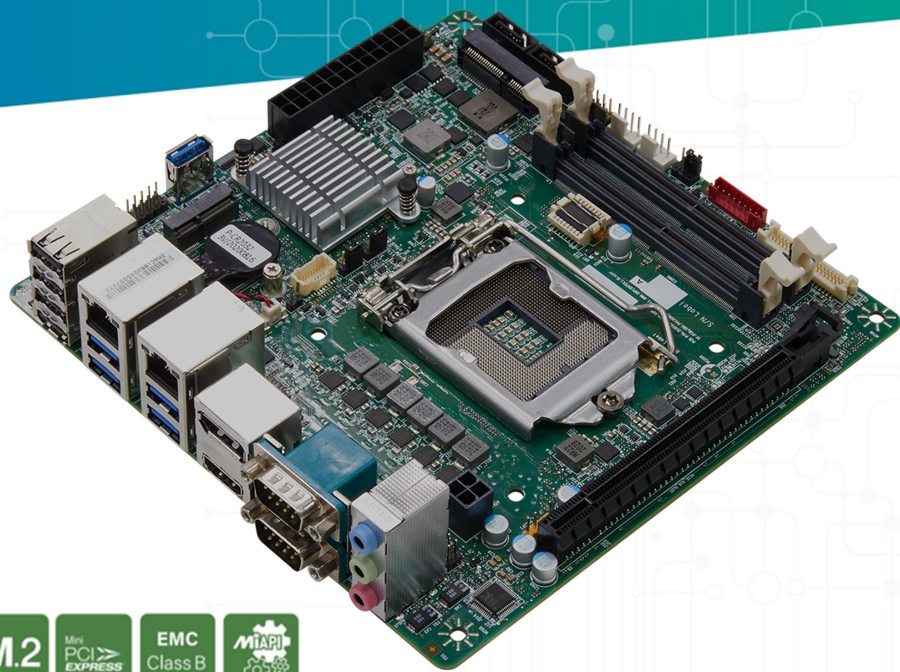


Intel® Comet Lake 10th Processor with Q470E / H420E Chipset Mini-ITX



MINI-ITX COMPUTER

- Up to Intel® Comet Lake 10th i9 35W & i5 95W LGA processor
- Intel® Q470E / H420E Chipset
- Intel® vPro technology support (Q470E)
- 2 x DDR4 SO-DIMM up to 64GB
- Support triple display for HDMI, DisplayPort and LVDS/eDP (Q470E)
- 1 x M.2 2280M-key (NVME), 1 x M.2 2230 E-key (CNVi), 1 x mPCIe Full size, 1 x PCIe X16
- 2 x Intel® Gigabit Ethernet
- ATX or single 12V DC input
- Operating Temperature : ET : -20°C ~ 70°C ; UT : -40°C ~ 85°C

Specifications

SYSTEM

CPU	10th Gen Intel® Comet Lake LGA1200 Socket Processor / 10core TDP Max 35W / 8ccore TDP 65W / (ATX support 6core 95W)
System Memory	DDR4 2933/2666/2400MHz / 2 x 260-pin SO-DIMM / Max. 64 GB (Non-ECC)
Chipset	Intel® Q470E (Support RAID 0 / 1 / 5, VPro) / colay H420E
Graphics	Intel® HD Graphics
I/O Chipset	Nuvoton NCT6126D(eSPI)
TPM	Nuvoton NPCT750AAAYX TPM2.0 (Optional)
BIOS	AMI BIOS / 256 Mbit SPI
H/W Monitor	Temperature Monitor / Voltage Monitor / Fan Monitor
Watchdog Timer	1~255 steps by software program
Smart Fan Control	CPU Fan / System Fan

EXPANSION SLOT

M.2	1 x M.2 2230 E key(PCle / USB)/ M.2 2242 / 2280 M key (PCleX4, SATA)
Mini PCie	1 x Mini PCIe Full size (PCle / USB / SATA)
PCIe Slot	1 x PCIe 3.0 X16 slot

DISPLAY

HDMI	Up to 4K (4096 x 2160) @30 Hz
Dsisplayport	Up to 4K (4096 x 2304) @60 Hz
LVDS	Up to 1920 x 1200 @60 Hz
eDP (Option)	Up to 4K (4096 x 2304) @60 Hz

ETHERNET

Chipset	Intel® I219-LM Giga LAN + Intel® I210-AT Giga LAN
---------	---

AUDIO

Codec	Realtek® ALC662 / ALC888
-------	--------------------------

REAR I/O

USB	4 x USB 2.0 / 4 x USB 3.1 (Q470E) ; 4 x USB3.0(H420E)
Display I/O	1 x HDMI 1.4 / 1 x DisplayPort 1.2

Audio I/O	1 x Mic-in / 1 x Line-out / 1 x Line-in
-----------	---

Lan I/O	2 x RJ-45
---------	-----------

Serial Port	2 x RS232 (one support RS422,/485)
-------------	------------------------------------

INTERNAL I/O

Storage	2 x SATAIII
---------	-------------

USB	1 x USB 3.0 / 2 x USB 2.0
-----	---------------------------

Display I/O	1 x LVDS (*Optional eDP SKU available) / 1 x Backlight Connector
-------------	--

GPIO	1 x MiAPI Header (Programmable. Support 10-bit GPIO)
------	--

Fan	1 x 4-pin CPU Fan Header / 1 x 4-pin System Fan Header
-----	--

Power	1 x ATX Power Connector / 1 x AT / ATX Mode Select Jumper / ATX 12V Power Connector (24-pin + 4-pin)
-------	---

Others	1 x CMOS Jumper / 1 x Front Audio Header (Mic-in & Line-out) / 1 x panel power select header / 1x buzzer header / 1 x SPDIF
--------	--

ENVIRONMENTAL

Form Factor	Mini ITX
-------------	----------

Power Type	ATX 24-pin + 4-pin / 12V DC (3pin terminal connector via cable by connecting to ATX 24-pin + 4-pin)
------------	--

Dimension	170 mm x 170mm
-----------	----------------

Operating TEMP.	ET : -20 ~ 70°C
	UT : -40 ~ 85°C

Storage TEMP.	-40 ~ 85°C
---------------	------------

Relative Hum.	10% ~ 95% R/H (Non-condensing)
---------------	--------------------------------

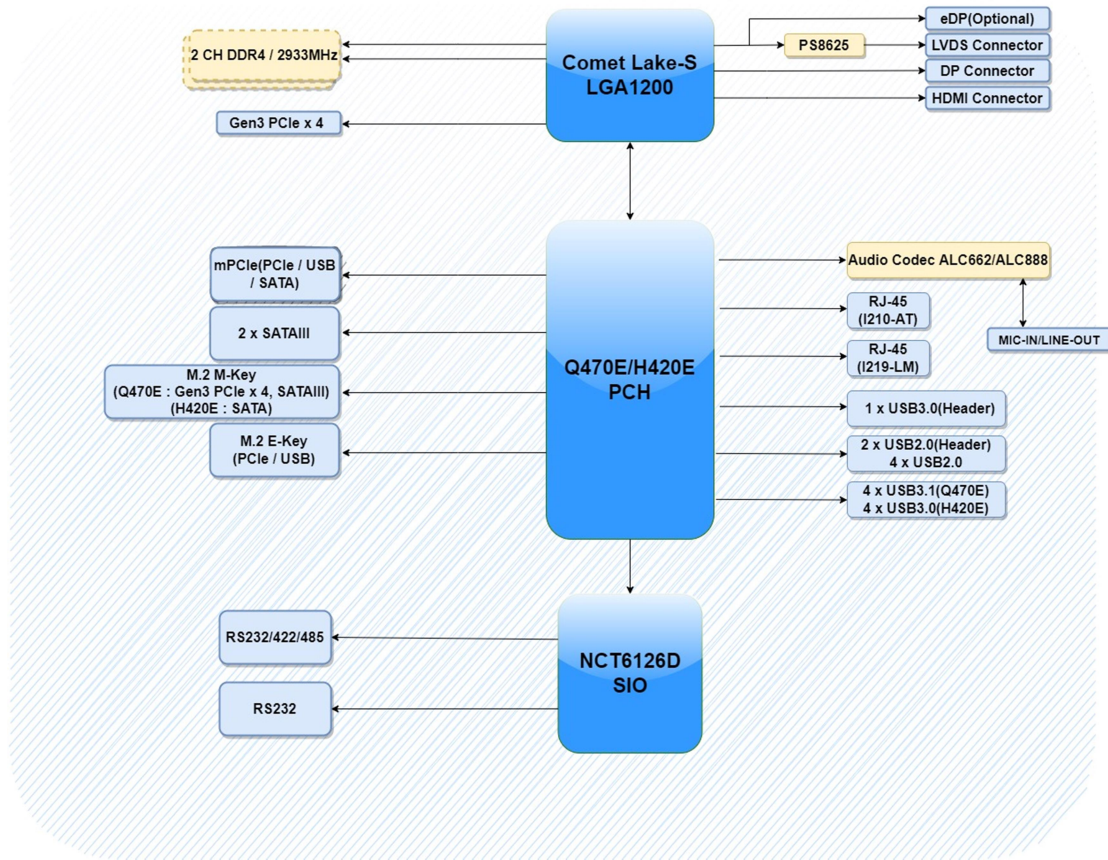
STANDARD COMPLIANCE

Standard Compliance	CE/FCC
---------------------	--------

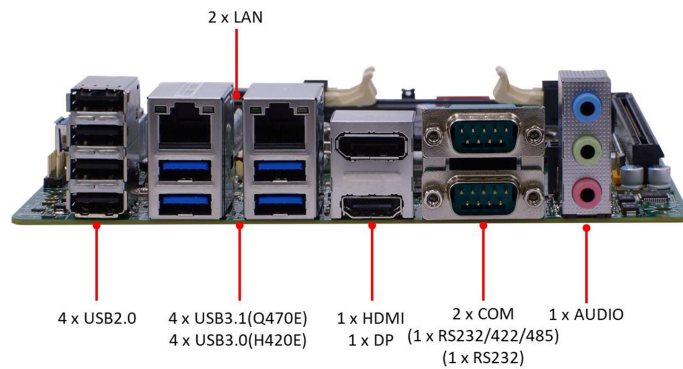
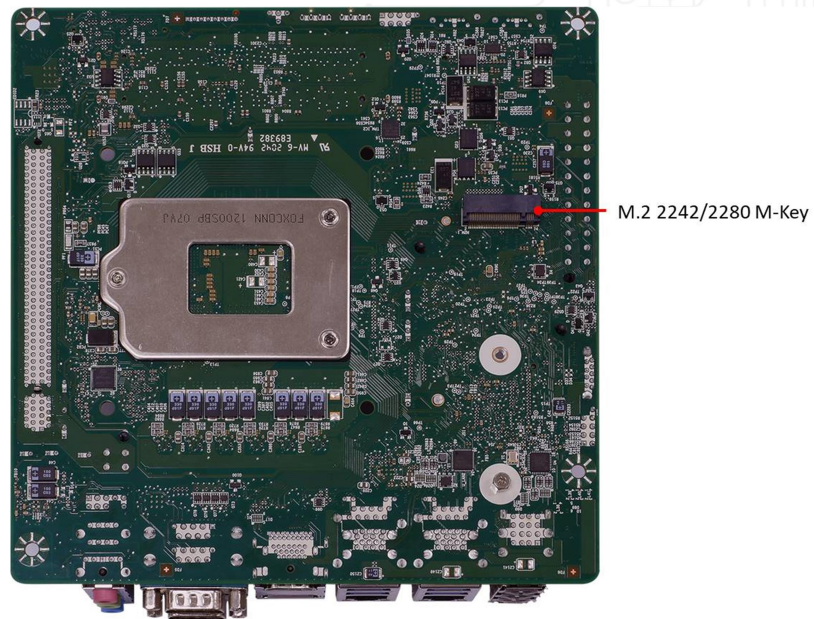
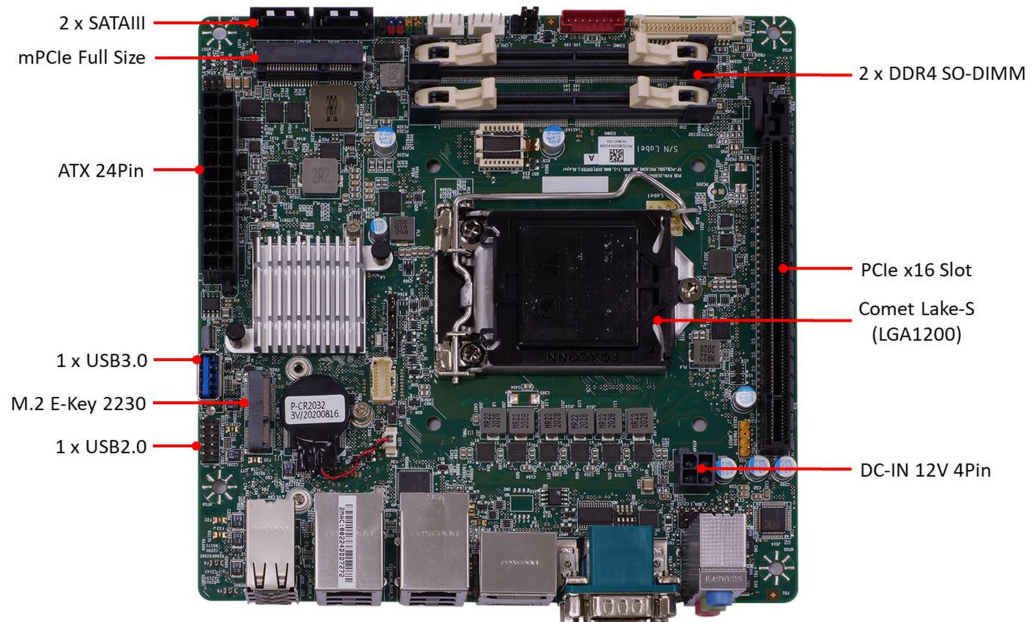
OS

OS Support	Windows®10 64-bit
	Linux(Support by request)

Block Diagram



Dimension



Ordering Information

Model	CPU	PCH	Expansion	USB3.1/3.0/2.0	System Power Input	Operation Temp.
INS8370A-01ET	10 th LGA 1200 (Up to 65W)	Q470E	1 x M.2 M-Key 2242/2280 1 x M.2 E-Key 2230 1 x mPCIe Full Size 1 x PCIe16 Slot	4/1/6	DC 12V	-20 to 70°C
INS8370A-01UT				4/1/6		-40 to 85°C
INS8370A-02ET		H420E		0/5/6		-20 to 70°C
INS8370A-02UT				0/5/6		-40 to 85°C
INS8370A-03ET (Optional)		Q470E		4/1/6	ATX	-20 to 70°C
INS8370A-03UT (Optional)						4/1/6
INS8370A-04ET (Optional)		H420E		0/5/6		-20 to 70°C
INS8370A-04UT (Optional)				0/5/6		-40 to 85°C